

Project title**Designing and simulation of phase-matched THz transmission line on fully etched thin-film lithium niobate****Your mission**

The commonly used structure for integrated THz device (emitter, detector...) based on thin-film lithium niobate platform with LN waveguide partly etched (~300 nm) with phase-matched transmission line. However, this will introduce “crosstalk” problem and caused interference signal, which should be avoided (Figure 1).

This project focuses on designing a new device structure, especially for phase-matched THz transmission line with fully etched LN waveguide (~600 nm) for terahertz applications.

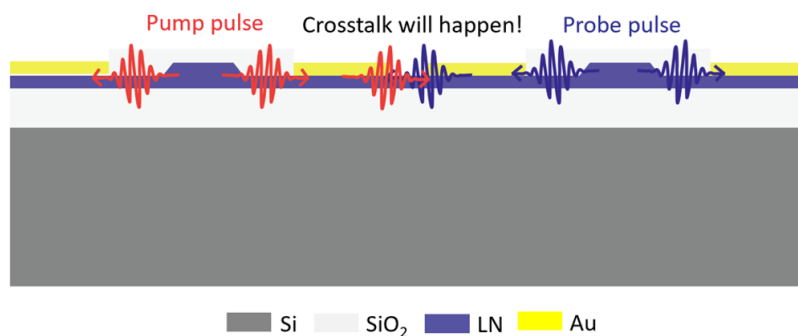


Figure 1 crosstalk in integrated THz device

What you will learn about

- Physics of ultrafast optics and nonlinear optics
- THz science and technology
- Simulation software such as CST Studio Suite

Contacts

Interested candidates please send your CV and transcript of records to Xuhui Cao at xuhui.cao@epfl.ch and Prof. Cristina Benea-Chelmsu at cristina.benea@epfl.ch.